

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Withdrawn): A manufacturing method of a soft magnetic green compact comprising:

mixing a magnetic powder including an iron system powder and a mixed powder including a resin powder;

compressively molding the magnetic powder and the mixed powder in a mold by a powder metallurgic method in a mold to form a green compact; and

applying thermal treatment to the green compact;

wherein the resin powder includes a lubrication function and a binding function; and

wherein a composition amount of the resin powder is 0.10-3.00 weight percent relative to the total weight before the molding and is 0.01-0.50 weight percent relative to the total weight after the molding and the thermal treatment.

Claim 2 (Withdrawn) A manufacturing method of a soft magnetic green compact comprising:

mixing a magnetic powder formed by coating an insulation film on a surface of an iron system powder and a mixed powder including a resin powder;

compressively molding the magnetic powder and the mixed powder by a powder metallurgic method with a mold to form a green compact; and

applying thermal treatment to the green compact;

wherein the resin powder includes a lubrication function and a binding function; and  
wherein

a composition amount of the resin powder is 0.10-3.00 weight percent relative to the total weight before the molding and is 0.01-0.50 weight percent relative to the total weight after the molding and the thermal treatment.

Claim 3 (Withdrawn): The manufacturing method of the soft magnetic green compact according to Claim 1, wherein the resin powder includes a polyamide system resin whose maximum particle diameter is equal to or smaller than 200 $\mu$ m.

Claim 4 (Withdrawn): A manufacturing method of a soft magnetic green compact comprising:

mixing a magnetic powder including an iron system powder and a mixed powder including a resin powder;

compressively molding the magnetic powder and the resin powder in a mold by a powder metallurgic method with a mold to form a green compact; and

applying thermal treatment on the green compact;

wherein the resin powder includes a lubrication function and a binding function; and

wherein the resin powder includes a polyamide system resin and a thermoplastic resin having a melting point equal to or higher than 200°C.

Claim 5 (Withdrawn): The manufacturing method of the soft magnetic green compact according to Claim 4, wherein a composition amount of the polyamide system resin and the thermoplastic resin having the melting point equal to or higher than 200°C is 0.10-3.00 weight percent relative to a total weight before the molding and is 0.01-0.80 weight percent relative to a total weight after the molding and the thermal treatment.

Claim 6 (Withdrawn): The manufacturing method of the soft magnetic green compact according to Claim 4, wherein the thermoplastic resin having the melting point equal to or higher than 200°C includes polyphenylene sulfide system resin.

Claim 7 (Withdrawn): The manufacturing method of the soft magnetic green compact according to Claim 1, wherein the thermal treatment is performed at 100-450°C.

Claim 8 (Withdrawn): The manufacturing method of the soft magnetic green compact according to Claim 1, wherein the green compact after the thermal treatment includes density of 6.6-7.4 g/cm<sup>3</sup>.

Claim 9 (Withdrawn): The manufacturing method of the soft magnetic green compact according to Claim 1, wherein the thermal treatment is performed at oxidizing ambient.

Claim 10 (Currently Amended): A soft magnetic green compact comprising:  
a magnetic powder including an iron system powder; and  
a mixed powder including a resin powder;  
wherein:  
the green compact is formed by compressively molding the magnetic powder and the mixed powder by a powder metallurgic method, and applying a thermal treatment;  
the resin powder has a lubrication function and a binding function;  
the resin powder is present in an amount of 0.01-0.50 weight percent relative to a total weight of the green compact after molding and thermal treatment; and  
particles of the magnetic powder are directly bound to each other by oxidation caused by the thermal treatment.

Claim 11 (Currently Amended): A soft magnetic green compact comprising:  
a magnetic powder including an iron system powder with an insulation coating; and  
a mixed powder including a resin powder;  
wherein:

the green compact is formed by compressingly molding the magnetic powder and the resin powder in a mold by a powder metallurgic method, and applying a thermal treatment;

the resin powder has a lubrication function and a binding function;

the resin powder is present in the green compact in an amount of 0.01-0.50 weight percent relative to a total weight of the green compact after molding and thermal treatment;  
and

~~particles-insulation coatings~~ of the magnetic powder are bound to each other by oxidation caused by the thermal treatment.

Claim 12 (Original): The soft magnetic green compact according to Claim 10, wherein the resin powder includes a polyamide system resin whose maximum particle diameter is equal to or smaller than 200 $\mu$ m.

Claim 13 (Previously Presented): The soft magnetic green compact according to Claim 10, wherein the resin powder includes a polyamide system resin and a thermoplastic resin having a melting point equal to or higher than 200°C.

Claim 14 (Original): The soft magnetic green compact according to Claim 13, wherein the thermoplastic resin having the melting point equal to or higher than 200°C includes a polyphenylene sulfide system resin.

Claim 15 (Previously Presented): The soft magnetic green compact according to Claim 10, wherein the thermal treatment is performed at 100-450°C and at oxidizing ambient.

Claim 16 (Previously Presented): The manufacturing method of the soft magnetic green compact according to Claim 10, wherein the green compact has a density of 6.6-7.4 g/cm<sup>3</sup> after thermal treatment.

Claim 17 (Canceled).

Claim 18 (Currently Amended): A soft magnetic green compact comprising:  
a magnetic powder including an iron system powder; and  
a resin powder;  
wherein:  
the green compact is formed by compressively molding the magnetic powder and the resin powder by a powder metallurgic method, and ~~applied~~applying a thermal treatment;  
the resin powder has a lubrication function and a binding function;  
the resin powder is present in an amount of 0.01-0.50 weight percent relative to a total weight of the green compact after molding and thermal treatment; and  
particles of the magnetic powder are directly bound to each other by oxidation.

Claim 19 (Currently Amended): A soft magnetic green compact comprising:  
a magnetic powder including an iron system powder provided with an insulation film coating on a surface thereof; and  
a resin powder;

wherein:

the green compact is formed by compressively molding the magnetic powder and the resin powder by a powder metallurgic method, and applying a thermal treatment;

the resin powder has a lubrication function and a binding function;

the resin powder is present in an amount of 0.01-0.50 weight percent relative to a total weight of the green compact after molding and thermal treatment; and

~~particles~~ insulation film coatings of the magnetic powder are bound to each other by oxidization.

Claim 20 (Previously Presented): The soft magnetic green compact according to Claim 10, wherein the thermal treatment is performed at 250-450°C and at oxidizing ambient.

Claim 21 (Previously Presented): The soft magnetic green compact according to Claim 11, wherein the thermal treatment is performed at 250-450°C and at oxidizing ambient.

Claim 22 (Previously Presented): The soft magnetic green compact according to Claim 11, wherein the insulation film includes a phosphoric acid system film formed by phosphoric conversion treatment.

Claim 23 (Previously Presented): The soft magnetic green compact according to Claim 22, wherein the insulation film of the magnetic powder is bound by oxidization.

Claim 24 (Previously Presented): The soft magnetic green compact according to Claim 10, wherein the resin powder is present in an amount of 0.10-3.00 weight percent relative to the total weight before molding.

Claim 25 (Previously Presented): The soft magnetic green compact according to Claim 11, wherein the resin powder is present in an amount of 0.10-3.00 weight percent relative to the total weight before molding.

Claim 26 (New): The soft magnetic green compact according to claim 10, wherein an insulation coating is formed on the iron system powder.

Claim 27 (New): The soft magnetic green compact according to claim 18, wherein an insulation coating is formed on the iron system powder.

Claim 28 (New): A soft magnetic green compact comprising:  
a magnetic powder including an iron system powder with an insulation coating; and  
a mixed powder including a resin powder;  
wherein:  
the green compact is formed by compressively molding the magnetic powder and the mixed powder by a powder metallurgic method, and applying a thermal treatment;  
the resin powder has a lubrication function and a binding function;  
the resin powder is present in an amount of 0.01-0.50 weight percent relative to a total weight of the green compact after molding and thermal treatment;  
the insulation coating covers the iron system powder so that there is no mixed powder between the iron system powder and the insulation coating; and  
particles of the magnetic powder are bound to each other by oxidization caused by the thermal treatment.

Claim 29 (New): A soft magnetic green compact comprising:

a magnetic powder including an iron system powder with an insulation coating; and

a mixed powder including a resin powder;

wherein:

the green compact is formed by compressively molding the magnetic powder and the mixed powder by a powder metallurgic method, and applying a thermal treatment;

the resin powder has a lubrication function and a binding function;

the resin powder is present in an amount of 0.01-0.50 weight percent relative to a total weight of the green compact after molding and thermal treatment;

the insulation coating covers the iron system powder so that there is no mixed powder between the iron system powder and the insulation coating; and

particles of the magnetic powder are bound to each other by oxidation.

Claim 30 (New): A soft magnetic green compact comprising:

a magnetic powder including an iron system powder with an insulation coating; and

a resin powder;

wherein:

the green compact is formed by compressively molding the magnetic powder and the resin powder by a powder metallurgic method, and applying a thermal treatment;

the resin powder has a lubrication function and a binding function;

the resin powder is applied by the thermal treatment;

the resin powder is present in an amount of 0.01-0.50 weight percent relative to a total weight of the green compact after molding and thermal treatment; and

particles of the magnetic powder are bound to each other by oxidation.



Claim 31 (New): A soft magnetic green compact comprising:

a magnetic powder including an iron system powder with an insulation film coating on a surface thereof; and

a resin powder;

wherein:

the green compact is formed by compressively molding the magnetic powder and the resin powder by a powder metallurgic method, and applying a thermal treatment;

the resin powder has a lubrication function and a binding function;

the resin powder is applied by the thermal treatment;

the resin powder is present in an amount of 0.01-0.50 weight percent relative to a total weight of the green compact after molding and thermal treatment; and

particles of the magnetic powder are bound to each other by oxidation.

Claim 32 (New): A soft magnetic green compact comprising:

a magnetic powder including an iron system powder; and

a resin powder;

wherein:

the green compact is formed by compressively molding the magnetic powder and the resin powder by a powder metallurgic method, and applying a thermal treatment;

the resin powder has a lubrication function and a binding function;

the resin powder is present in an amount of 0.010-3.00 weight percent relative to a total weight of the green compact before the molding and is present in an amount of 0.010-0.50 weight percent relative to the total weight of the green compact after molding and thermal treatment; and

particles of the magnetic powder are bound to each other by oxidation.

Claim 33 (New): A soft magnetic green compact comprising:

a magnetic powder including an iron system powder with an insulation film coating on a surface thereof; and

a resin powder;

wherein:

the green compact is formed by compressively molding the magnetic powder and the resin powder by a powder metallurgic method, and applying a thermal treatment;

the resin powder has a lubrication function and a binding function;

the resin powder is present in an amount of 0.010-3.00 weight percent relative to a total weight of the green compact before the molding and is present in an amount of 0.010-0.50 weight percent relative to the total weight of the green compact after molding and thermal treatment; and

particles of the magnetic powder are bound to each other by oxidation.